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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	
		Filing Date	
		First Named Inventor	James N. Ray
		Art Unit	
		Examiner Name	
Sheet	of	Attorney Docket Number	00147/B

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
BAL ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓		US- 3,874,908	04-01-1975	Liddell	
		US- 4,668,539	05-11-1987	Leonard et al.	
		US- 4,670,992	06-11-1987	Leonard et al.	
		US- 5,395,656	03-11-1995	Liang	
		US- 5,478,598	12-26-1995	Shidzawa	
		US- 5,652,023	07-29-1997	Bergervoet et al.	
		US- 6,040,057	03-11-2000	Slimak et al.	
		US- 6,235,346	05-11-2001	Barnisin, Jr.	
		US- 6,235,403	05-11-2001	Vinden et al.	
		US- 6,274,199	08-11-2001	Preston et al.	
		US-			
		US-			
		US-			

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)			
BAL ↓ ↓ ↓ ↓		WO 88/00114	01-14-1988	A.E. Maude et al	
		WO 98/18872	05-07-1998	Tarren Wood Pro	
		WO 98/19939	05-14-1998	R.D. Lichti	
		UK 990,834	05-05-1965	Koppers Company	
		DE 197 46 701 A1	04-23-1998	K.K. Mywood et	

Examiner Signature	Brenda Adil Fand	Date Considered	6/2004
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